

50c august 1969 society of architects michigan





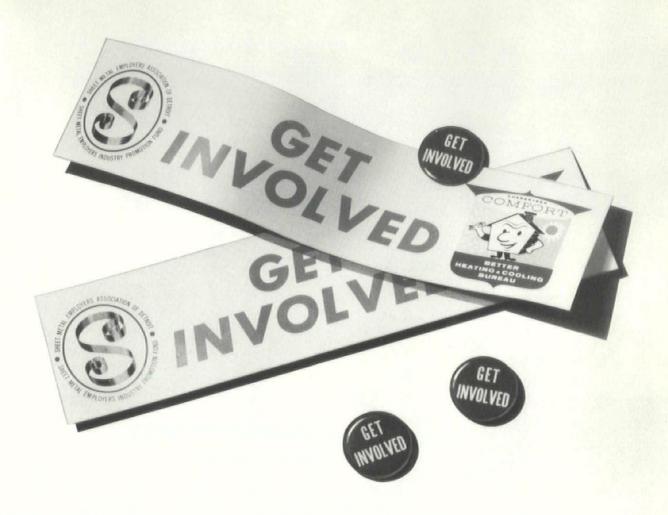
S'no Problem...

WITH A BUILT-IN SNOW REMOVAL SYSTEM



Keep winter in mind when you design. In July, it's easy to forget last winter's snow removal problems. But remember now to plan for the safety and comfort of pedestrians, the elimination of snow shoveling labor, and the reduction in pavement maintenance that's required when surfaces are damaged by plows, ice choppers and chemicals. Include an economical electric or natural gas snow removal system and prevent snow problems from ever happening. Electric and gas representatives throughout the Company's service area will be pleased to assist you.

Call or write our Marketing Department at any of the Company's fifteen Division offices.



GETTING INVOLVED

Get Involved. That's the name of the game. It never stops, no matter what you do. Whether it's at work or play, social, at home or otherwise, involvement with something or somebody is happening every minute of the day. These words can be spotted in our advertising messages, on billboards, radio, television, magazines, newspapers...even badges and bumper stickers. It's a sort of "get with it" campaign. Ultimately, it will

generate more service, better workmanship, competitive pricing, faster and more economical construction . . . especially if it's a result of separate bidding. So . . . as an architect or engineer, total involvement with our air handling contractors is the logical answer. That's really getting involved. (Incidently, if you'd like a few "Get Involved" badges, give us a call . . . the gals love 'em).

GET INVOLVED with a division of the

SHEET METAL EMPLOYERS ASSOCIATION OF DETROIT

DIVISIONS: Mechanical Air Handling Contractors • Better Heating and Cooling Bureau Architectural Sheet Metal Contractors. 15139 West Eight Mile Road • Detroit, Michigan 48035. (313) 864-6833 Anthony A. Asher, Executive Secretary

Listen and watch SMEAD messages on Tiger baseball, WJR, WQTE, TV-2 News TV-7 Dave Diles Sports.



McKINLEY

ILLUSTRATED: Aluminum Loading Dock; acrylic finish for lasting durability.

PROTECTIVE



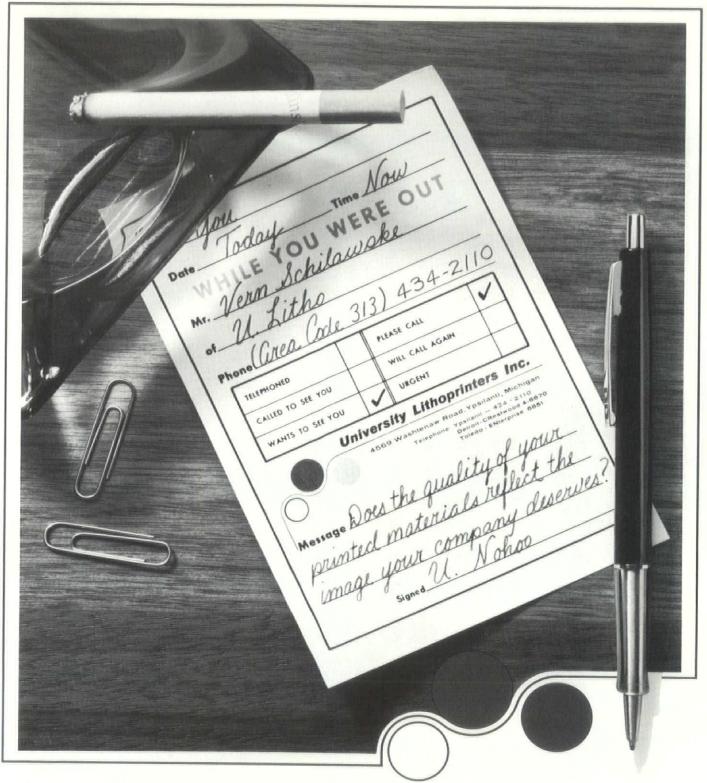
Engineering

Fabrication-Finishing-Installation

O. O. McKINLEY CO. INC., Indianapolis, Indiana

P. O. BOX 55265

ZIP 46205



Consider for a moment the quality of the printed materials you use to influence others. Does it measure up to the same standards of excellence you set for your company's products or services? We think it should. That is why it's personally important to us that each job we do represent printing quality at its best, delivered on time, and at a fair price. Call University Lithoprinters before you order your next printing job.

FREE MESSAGE MEMO PADS

Get the message right. Send us your name and address on your company letterhead, and we'll send you a free supply of message memos (illustrated above actual size).

University Lithoprinters Inc.

4569 Washtenaw Road, Ypsilanti, Michigan

TELEPHONE:

Ypsilanti-434-2110 Detroit-CRestwood 4-6670 Toledo—ENterprise 6851

CONTENTS

VOLUME 44 NO. 8

Editorial Analysis of the Electro Hydraulic VII Impulse Method for Strengthening Cement Construction-A Total Profession

XIII GET-Will It, Or Won't It?

News

IXX Report to the Membership June 22, 1969

Advertisers Calendar Obituaries

THE MONTHLY BULLETIN IS PUBLISHED FOR THE SOCIETY MICHIGAN ARCHITECTS TO ADVANCE THE PROFESSION OF AR-CHITECTURE IN THE STATE OF MICHIGAN.

MSA OFFICERS PRESIDENT

Jackson B. Hallett, AIA

VICE PRESIDENT

William Lyman, AIA

SECRETARY

David W. Osler, AIA

TREASURER

Howard Hakken, AIA

MSA DIRECTORS

Ralph Bergsma, AIA Chase Black, AIA Almon Durkee, AIA Bernard DeVries, FAIA Norman Kline, AIA Glen Paulsen, AIA Charles Scurlock, AIA Robert Siefert, AIA James Tomblinson, AIA

REGIONAL DIRECTOR Walter B. Sanders, FAIA

MANAGING EDITOR

Ann Stacy

ADVERTISING DIRECTOR

Gary R. Grout

Monthly Bulletin, Michigan Society of Architects, the official publication of the Society; all Michigan Chapters of the American Institute of Architects; Women's Architectural League of Detroit (WALD); Producers Council, Inc., Michigan Chapter; Builders & Traders Exchange of Detroit, Grand Rapids and Lansing is published monthly by the Michigan Architectural Foundation; Editorial and Advertising Offices-28 West Adams, Detroit 26, Michigan, Phone 965-4100.

Monthly Bulletin, Michigan Society of Architects, is published monthly at 28 West Adams, Detroit 26, Michigan. Paid as second class matter January 15, 1946 at the Post Office at Detroit, Michigan under Act of March 3, 1879. Subscription price, \$4.00 per year (members \$2.00). 50 cents per copy.

EDITORIAL

R. J. Spiegel, Chairman, Industry Relations Committee, AGC, Detroit Chapter, Inc.

This is the Construction Industry Issue and contractors have been invited to contribute articles of professional interest. But an editorial is needed-a general statment or message to the architects. "Just what do you contractors want to say to us" is the way we got the request for this

To some of you, the request can be handled nicely with a few words. To the rest of you, we contractors have much to say-much to ask of you-much to expect of you-and much to share with you for the benefit of our industry and our society.

Fact-We(you and I) are busy. Business is good. Volume still has its peaks and valleys but we're facing an unprecedented demand for our services in the next thirty years.

Fact-We don't have enough competent people to fill the demand-not enough architects, engineers, technicians, estimators, managers, tradesmen, apprentices . . . The only thing we both have plenty of is competition.

Fact-Costs are going up-zooming-sky-rocketing out of sight. And neither you nor we can reflect the increases in

our fees. (Yes, contractors have fees, too!)

Fact-Administrative costs are matching the sky-ride of direct costs. More demands are placed upon us by government regulations, social reform, labor demands, legal considerations and the simple truth that running a business in the twentieth century is a really complex problem.

Fact—We have the same goals—a well designed and constructed building, completed on time for a satisfied Owner, where we all make a profit. We should work together towards these goals.

Most discouraging Fact of all—architects and contractors are no closer to a useful association to help each other achieve our common goals than we were twenty years ago.

We are all up to here with the problems of the "Frantic Fifties", and the "Soaring Sixties". Can't we work together and produce for our society in the Seventies before we get eliminated in the Eighties?

Before its too late, Mr. Architect, let's do it this way:

Standardize the documents. Start with the General Conditions, straighten out the Supplementary General Conditions, and simplify the Special Requirements. Codify the Specification numbering system to help all of us save time and utilize the data processing equipment available. Can anyone justify the time spent by so many people in our industry reading and trying to understand so much different language treating the same subject

Standardize the procedures and terminology. Bulletin, addenda, precontract bulletin, telegram, field order, emergency field order, A.V.O., clarifications—why not addenda before the contract is signed, bulletins and field orders

after?

Approvals in duplicate, samples in triplicate, quotations in quadruplicate—"no, make that five copies, George said he wants a copy of anything to do with money." Six copies of progress meeting minutes, shop drawings in seven copies or sepia and one print, space for stamps in the right hand upper (no, lower) corner, show architect's job number or they will be returned! Can anyone justify the time spent by so many people in our industry doing the same things

in so many different ways just because it is a different job?

Standardize billing forms and procedures. Use simple forms that tell the story for someone familiar with the job that can be produced on data processing equipment. Let's establish, once and for all, that contractors can get paid for stored material, and for preparatory work or long delivery items off-site. Let's act promptly on pay requests, and pay on time! Let's not extract the last bit of patience out of the people paying the bills. Why should half the owners play the game fair and square and finance the 90-days-or-later-owners. Let's stop asking for waivers of lien of public jobs, or delaying partial or final payments by insisting on waivers from people whose lien rights have expired. Can anyone justify the time wasted by so many people just trying to get paid?

I suppose it is asking too much to standardize the drawings. But certainly we can standardize the format, arrangement, and a lot of the details. Do contractors find door and finish schedules presented? How ridiculous some detailnumbering schemes can be? Do any of us have the time to

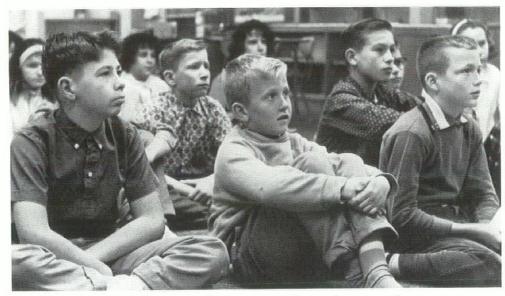
put up with the variations

Unquestionably, Michigan is the home of some of the finest architectural and engineering firms in the world. Some of the absolutely best designs in the business have been produced right here in your offices. Michigan architecture, engineering and design enjoys a position of leadership. No one can tell me that architects with this kind of record can't do something fast about some very basic problems that are draining man-hours from your organization and our. Some man-hours which could be so much better utilized doing what we're trained to do—building.

Mr. Spiegel is Executive Vice President of the Palmer-

Smith Company of Detroit.

The all-electric school.



A better climate for learning.

There's a new concept at work here. It's school heating, lighting and food service from a single source. It means more school for the money. A better atmosphere for the kids. It's the all-electric school.

An all-electric school makes for a healthier, cleaner environment by elimination of smoke, soot, ashes. It also offers safe, simple, sure operation. Electric heating requires a minimum of attention. Reduces the possibility of human error. Simplifies building maintenance. Eliminates wasteful whole school closings following boiler breakdowns.

Long heating-up and coolingdown periods are unnecessary. Heat is furnished when needed, shut off when not needed. Enables fuller use of school facilities during off-hours, even when an event is an unexpected, last-minute one.

Heating requirements differ if one side of a building is sunny, the other shaded. Electric heating easily adapts to varying conditions within a building. For hot weather, wiring installed for the heating system can be used to energize air conditioners. The all-electric school removes the distraction of discomfort.

These benefits can be enjoyed at reduced electric energy rates, too. We've reduced monthly rates to: Net energy charge—\$170 for 10,000 kilowatt hours or less, 1.31¢ per kilowatt hour for the excess. Minimum charge—\$170 per month.

In Detroit call, WO 2-2100, Ext. 2223, for information. Elsewhere, call the nearest Edison office.

EDISON

Analysis of The Electro-Hydraulic Impulse Method For Strengthening Cement

John R. Wieland, B.S.E.E. Barton-Malow Company

INTRODUCTION

With the rise in construction costs today, it is imperative that the engineering sciences develop new products and methods. Utilizing new concepts in labor, products and techniques, the problem of cost can be solved. Unfortunately, the civil engineering curricula of today often does not always develop the personnel to cope with these problems. Other disciplines must accept the challenge.

The impulse method in its present state of development is impractical as far as applying it to actual construction situations. Barton-Malow Company of Detroit is in the process of determining by actual test if the method will be beneficial in concrete work.

EXPLANATION OF THE IMPULSE METHOD

The original developmental work concerning activation of cement by the electro-hydraulic method was carried out at the Institute of Engineering Construction at Dnjepropetrowsk, in the U.S.S.R. A schematic diagram of the plant for the generation of the impulse discharges is shown in Fig. 1.

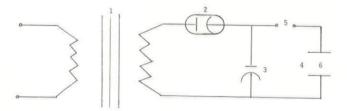


Fig. 1

- 1 Transformer
- 6 Working Arc Gap and Sample
- 2 Rectifier
- 4 Working Chamber
- 3 Condenser
- 5 Arc Gap

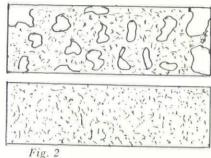
The electro-hydraulic effect is based on the following: At a certain potential during condenser charging, breakdown occurs. At this time, breakdown of the impulsegenerating arc gap and operating chamber (cement filled) working arc-gap occurs. A 'plasma sphere' forms between the electrodes of the working chamber with a temperature approaching 10,000 degrees C. and with a pressure in the range of 1000 to 10,000 atmospheres. This plasma sphere produces a compression zone in the treated liquid cement. Because of the extremely short duration of the discharge (of the order of magnitude of 10 microseconds), the compression zone has the characteristics of a spheroidal sound wave of very high power and with a length of several centimeters. This wave travels in the cement mixture with the velocity of sound. When the plasma sphere collapses, a negative pressure wave forms which immediately propagates back through the compression zone. Part of this pressure wave in the cement mixture is used for practical

In the Russian experiment, the sample size was a cube of an edge length of 40mm. Since this size is impractical for any cement uses other than the small grouting operations, the variables which affect the success of the process for samples of greater size must be determined. With samples (40mm cubes) of this small size, it was found that the

water-cement raito and arc gap length were the control variables.

The best results were achieved on cement types of poorer quality. This was probably due to the larger initial particle size in the poorer quality cement than in higher quality cement. The effect of the electro-hydraulic impulses on the cement particles is shown in Fig. 2.

- a) Top; untreated water cement mixture
- b) Bottom; treated mixture



Microscopic Look at the Process

The key to the process is the high energy electrical spark, which is converted to mechanical energy at the working electrodes. The amount of energy which will be converted depends, of course, upon several factors. Refinements in the electrical circuit can be made to complement the requirements of individual situations. The problem now is to determine by tests on concrete samples if any worthwhile results can be obtained by the process.

A knowledge of the chemistry of the cement reaction will be helpful in understanding how the electro-hydraulic impulse method works.

The chemical process in cement mixtures is divided into two parts. These two parts are setting and hardening. The process is diagramed below.

I. Unhydrated cement

II. Plastic cement-water mass

IIIa. Metastable gel of crystals of colloidal dimensions

IV. Stable gel, water storage

V. Crystalline products of courser dimensions

As explained in the section on the impulse method, electrical energy is dissipated in the formation of the high-energy mechanical wave. This wave breaks the cement particles up into smaller aggregates. When the wave breaks the larges particles into smaller ones, the hydration process is more complete, thus facilitating a more complete reaction, which means a final product of greater total

strength. The electrical current also aids in the ionization of the water used in the hydration process.

LIMITATIONS IN THE IMPULSE METHOD

The foremost problem in applying the method is the heating effects due to Joulean and mechanical resistance heating processes. As the cement is heated, the chemical process is accelerated. Also, some of the water in the mixture is evaporated. This results in incomplete reactions, thus lowering the final strength of the products. The number of impulses for any given cement samples would therefore be limited. This limit would depend on the sample size and chemical structure used.

CONCLUSIONS

The method of electro-hydraulic impulses can be applied in principle anywhere it is intended to develop a powerful compressive wave in a liquid or mixture of liquids and solids. The rate of impulses can be controlled by circuit considerations. The actual strength of the wave will depend on the structure of the sample involved. In job situations, portable generating equipment could be used as a power source. Since the probes would be of small diameter (order of ½"), no damage would be done to the form work containing the concrete. It must be noted, however, that the actual effects of the process in concrete have not been adequately determined. Barton-Malow Company is proceeding with experiments to determine the effects of electro-hydraulic impulses in concrete.

Footnote:

1 "Doubling the Strength of Cement by the Electro-hydraulic Impulse Method," translation of an article by G. Sengur, published in the Ukranian Technical Journal "Budivelni Materialy i Konstruckiji" (Building Materials in Construction) 1968, No. 2 (March/April) pp. 31-32.

SPEC. WRITERS

When you need assistance writing specifications for roofing, sheet metal or waterproofing jobs call on the R.I.P.F.

Our Technical Consultant is ready to assist you on matters pertaining to the moisture-protection phase of the work.



Roofing Industry Promotion Fund

E. B. GRIME 8469 E. JEFFERSON DETROIT 313 Exec. Secty. 48214 822-0700-01



PICTURED: Dormitory Complex #2
Eastern Michigan University, Ypsilanti,
Michigan, Architect: Z. T. Gerganoff
and Associates, Inc.

Ceramic Tile Installed:

DECORATIVE FACINGS on Walls in Main Office Core; on Walls in Kitchens, Serving Areas and Lavatories; on Floors in Lavatories; QUARRY TILE in Vestibules and on Stairways.

when an architect plans for the future...

he selects building materials very carefully. A ceramic tile contractor will be pleased to explain how quality products and professional installation methods produce lasting effect.



GREAT LAKES CERAMIC TILE COUNCIL, Inc.

25100 Evergreen Road . Southfield, Michigan 48075

Construction—A Total Profession

Ralph J. Stephenson, P.E.

Mr. Stephenson is a consulting engineer with a diversified background in land planning, facilities location, and building design and construction.

Educated at Lawrence Institute of Technology (Bachelor of Science, Mechanical Engineering) and Michigan State University (Master of Science, Civil Engineering), he has been associated with such firms as Smith, Hinchman and Grylls, Victor Gruen Associates, and the H. F. Campbell Company. With the latter two organizations Mr. Stephenson occupied executive positions as Vice-President.

He is a registered professional engineer in the states of Michigan, Wisconsin, Illinois, Indiana, Ohio, Pennsylvania, West Virginia, Virginia and Florida. He is also a member of the Engineering Society of Detroit, the National Society of Professional Engineers and the Michigan Association of the Professions.

Since 1953 Mr. Stephenson has been associated at a management level with the planning, programming, design and construction of millions of dollars worth of industrial, commercial and public facilities in all parts of the United States. This broad experience has given him an understanding of both large and small management, and for the need to solve their problems through a creative, systematic and knowledgeable approach.

Construction is a dynamic business challenging the skilled manager. Good construction practice demands a blend of the talents of architects, planners, realtors, financiers, engineers, contractors, manufacturers, attorneys and many others. All contribute their abilities. We no longer can comfortably subscribe to the idea that environmental design and construction is a splintered practice, using splintered design techniques, implemented with a splintered managerial system and pasted together with a splintered responsibility pattern.

During the past 20 years I have had the privilege of observing construction and design operations from a variety of viewing points-the owner's, contractor's, architect's, sub-contractor's, engineer's and vendor's. This has provided an insight into some of the major problems our construction profession faces. Notice the word profession. Construction is a business and an industry . . . but it is also a profession. One has only to compare the number of legally registered people practicing today in offices of the many construction disciplines, as compared to 10 or 15 years ago to sense a trend toward higher standards. The participation of the professional in all phases of construction has strengthened the industry and given it sorely needed stature. It has encouraged achievement of a high level of competence and excellent ethical and moral behavior. Yet, when we look at ourselves as others may see us, we find we are often viewed as a bungling, inept, bull-headed, and sometimes dishonest group of quarrelling, greedy individuals. It is this disasterous image we must erase and replace with a true picture. We must do this not because we are self-seeking or to achieve a false professional sheen. We must do it to salvage a sick profession, one whose control is being assumed by those outside of the true design and construction disciplines; by those who would establish priorities other than good aesthetics, protection of public health, welfare and safety, competent design, creatively used space, and well thought-out, wellbuilt, well-operated, well-maintained physical environments. To regain our professional control position, we must start solving the problems that plague us. First, we must police our ranks, not by fear but by improving acceptable levels of achievement. Continuing education of those within and without professional ranks is an effective improvement technique. The construction professional must continually work to educate those with whom he associates-co-workers, clients, financial backers, attorneys, bankers, land developers, governmental agencies, all who are concerned with a constructed environment.

Next, we must begin to think of environments as being

constructed by a working team-a team selected not by single value competition only. Too often the owner, architect or contractor is prone to think that the best contract, or the best architect, or the best engineer is represented by the firm who quotes or bids the low dollar figure. This single value competition is debilitating and creates severe hardships for those who practice in a truly professional manner. There are few things we purchase today that are selected because of price alone. Other considerations invariably enter into every product and service purchase we make. Quality, appearance, integrity, competence, performance, all are influential and we must, in our profession, look to high quality multivalue levels to properly retain professional control.

The multiplicity of involved parties in a construction program often complicates its management. If we can understand that there are four basic parties to an environmental construction project, it will help us better recognize the roles all must play. There is first the conceiver-the party who conceives the idea and dominates its implementation. Second is the translator who articulates the concept into environmental construction language. Third is the constructor who actually builds the project and fourth, the operator who maintains and operates the environment as it is finally designed and built. If we list all parties to any construction program in this manner, it becomes abundantly clear how difficult is our professional managerial role, but such a listing will sort out the responsibility patterns and help give direction and meaning to inter-people relations on the job.

Another problem that must be concentrated upon is the changing responsibility pattern. Shifts of liability to parties not equipped financially, technically, or psychologically to take these intensive responsibilities has caused severe dislocations. The weasel worded specification, the inadequate shop drawing, the poorly designed field structure-these are only a few liability areas viewed with pleasure by the sharp attorney looking for ways to translate any loose end into a dollar bill for his angry client. To meet increasing liability pressures we must become more competent by working together better as a team, not fragmenting our profession into a human bearpit.

Of all problems, perhaps the most serious is the poor intra-communication between equally competent and reliable parties to the construction contract. When we consider how seldom professional designers, professional architects, professional engineers and professional contractors get together to trade reliable, effective and helpful information, it is easy to understand why we have problems. SomeIt's a wise plumber who follows the preferences of his customers.
Like remembering that more than 90 out of 100* families prefer Gas water heaters.

*of the customers we serve

how in environmental design and construction it is fashionable to believe that owners should remain aloof and that the engineer should associate only with the engineers, the architect with architects, the contractor with contractors and the vendor with vendors. There are class barriers between the groups. If we assume construction is a profession, then the fences that prevent effective communication must be breached. These walls have allowed opportunistic trade organizations to whipsaw the construction industry into almost total business chaos.

The last problem area I wish to deal with here is that of maintaining a moral and ethical balance in the face of increasing materialistic pressure. If this phrase sounds idealistic or naive, please think back to your basic life values. Often today a person who refuses to cut corners or to engage in questionable practices is regarded as not being with it. My observations of people with whom I work in the design and construction of environments show that the construction profession is one of the most honorable, honest, straightforward operations in our modern business society. Actually the nature of design and construction tends to make it difficult to continue in business and be personally dishonest or unethical. The tangible end result of a good design and construction program demands that every task from concept to occupation be done well, since dishonesty quickly becomes visual.

Let's review briefly some of the approaches we can take to solve these problems. We can improve our capabilities—learn about other things—real estate, financing, creative thinking, new equipment, decision-making systems—learn everything your mind can grasp effectively.

Second, gain better control of the profession. To gain control we must begin working together as a team. We must get over the idea that the owner, the architect, the contractor, the sub-contractor, the vendor, the engineer are enemies striving to get the best of one another. If we do

not regain control of the construction industry as a group, as a team, as a total organization, we will find the leadership drifting to brokers, bankers, speculators, and others who are now only involved in peripheral environmental operations. We will lose control not because others want it but because we are incapable of assuming it.

Third, create. It is difficult to be creative when faced with current restrictive practices imposed on design and construction. Nevertheless, we must continually create new things. Creation of the new though, must not be an automatic signal to eliminate the old. A fine professional friend once gave me a piece of advice especially appropriate here. Be the first to accept the new and the last to abandon the old. Use your minds and imagination to be intelligently creative.

Fourth, experiment. Experimentation provides incentive for advancement. Tragically in today's business society the architect and engineer are the ones least able to finance experimental programs. Fees are most always totally used in the design of the environment. There is little time or money left for studying and testing new materials and techniques. Resources for proper experimentation can only come when the total construction profession pulls together so a pooling of ideas, dollars and time can be accomplished to open new avenues of construction, management and environmental design.

I hope the brief ramblings we have engaged in together here will help stimulate your thinking about our very exciting and wonderful construction profession. Please don't read this article and put it aside, thinking how easy it is to philosophize, saying "I've got my job to do and I had better get back to it or it won't get done." If we don't solve the larger problems, and start putting the solutions to work, it's possible you will find your services are not needed in tomorrow's design and construction profession.

MICHIGAN DRILLING CO.

SOILS & FOUNDATION ENGINEERS
SERVING THE MIDWEST SINCE 1928

Soils Explorations and Laboratory Testing for Foundations and Other Structures

Consulting Services in Soils Engineering, Research & Other Special Problems

14555 WYOMING AVE. DETROIT 38, MICHIGAN 933-9366

SUPERSINE



CAST BRONZE LETTERS & SEAL Boulevard Bldg.—State of Michigan Albert Kahn Associates, Architects & Engineers

Another example of the unlimited choice of materials, alphabets, and designs available from Supersine.

- Die raised signs
- Engraved signs
- Cast signs
- Individual letters, custom designed and pictorial information signs

Phone today for complete design and ad-

THE SUPERSINE COMPANY
17685 FILER AVENUE DETROIT. MICHIGAN 48212.
1511 PHON: 872 6700 AREA CODE 313

M. Den Braven, Incorporated

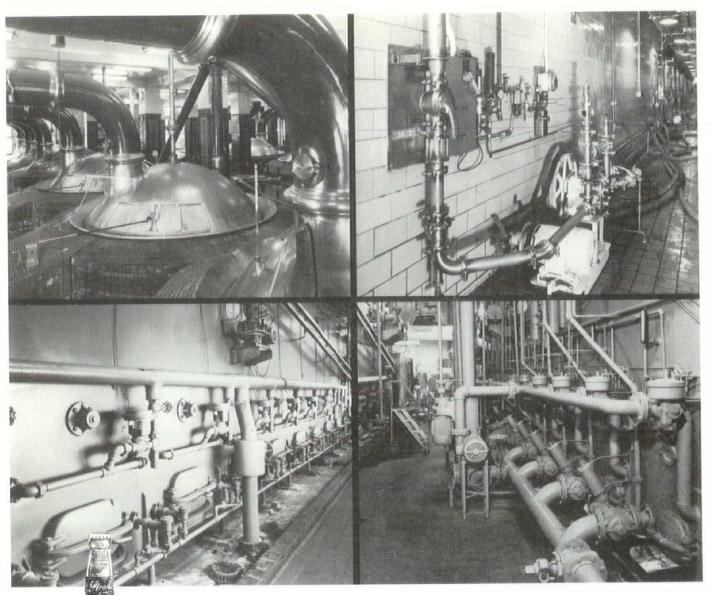
Our 57th Anniversay

-SHEET METAL-

— VENTILATING —

AIR CONDITIONING

9080 Alpine Avenue Detroit, Michigan 48204 933-7494-5-6



Sample our work...

The Stroh Brewery Company did. They brew volumes of beer whose flavor is protected by the finest process-piping system available.

Glanz & Killian did the complete process-piping job in Stroh's most vital beer brewing components—the Brew House, the Stock Cellars, and the Packaging department.

No matter what demands you're planning to place on your piping system, give us a call. We have the experience, the skill and the manpower to install the mechanical work best suited to your particular job.



COMPLETE MECHANICAL CONSTRUCTION

18655 W. Eight Mile Road • Detroit, Michigan 48219 • Telephone 255-2400

GET - Will It, Or Won't It?

by Richard C. Schurrer

For some years now a few contractors have been attempting to apply computer technology to the work of estimating. As with most computer applications, there is always some portion that cannot be effectively "computerized". In any proposed application the machine time must be large enough to justify the expense and effort involved. The question to be answered then, is not whether estimating can be computerized, but whether it's practical to do so at all. The problem of determining the practicality is complicated by many formidable objections. Most contractors consider estimating the very backbone of their business, and so are reluctant to lose any amount of control over the estimating procedures. Estimating is no doubt as much an art as it is a science, therefore when value judgments are called for, only an estimator can make them. Some construction people feel present methods are sufficient, and consequently there is no need for a computerized system. The objection most commonly raised is, "We're just too small to afford that amount of sophistication". For those of us who have continued experimenting in this field it has been a lonely road. The time has come to review this effort in order that architects and contractors can judge for themselves the value of estimating with the assistance of a computer.

There are two common misconceptions involving the use of computers in estimating:

- 1) No computer will read the plans and specifications and produce an accurate estimate.
- There is not now an estimating system that eliminates the need for the estimator.

By any measurement, computers are faster than humans. Speed, however, is not always an essential, in fact it can be a real detriment at certain points in the estimating process. Estimators normally work by themselves, but with computerization they will wait for "machine time" until another operation is complete. This problem is accentuated when your system is a time-shared or service bureau type. Uniformity will cause estimates to be more legible and easier for others to understand. Less time will be spent making quantity take-offs, pricing, etc., therefore greater emphasis can be applied to planning, scheduling in advance, evaluating unit prices, reviewing job conditions, and contracting sub-contractors. Of course extreme care must be exercised to avoid the pitfalls of sloppiness, and "garbage in, garbage out". Accuracy is the single most important advantage of a computerized system. When an individual must price his product before its true costs are known, accuracy becomes a paramount consideration.

After experimenting for six years, it is apparent that computers can be used successfully. Several methods were reviewed before it was finally decided to use both estimators and computer system designers to write a new

estimating system. A system was needed where the estimator would integrate himself with the machine. One where estimators could operate the machinery if necessary, and one which allowed the greatest possible amount of time for reviewing what had been completed. The resulting programs are known as General Estimating Techniques, or GET.

The GET system is broken down into three phases. Phase one records specification data. Phase two calculates a quantity survey, and prices the portion of the estimate the contractor intends to do with his own forces. Phase three provides a complete analysis of the sub-contractor proposals, and totals the complete estimate. At this writing, phases one and three are in "program design" stage, while phase two will be available for use by July 18th 1969. In all cases, every effort has been made to assure the system will interface with other industry problems. Critical Path Scheduling can be easily added to this system. Cost accounting, periodic request for payments, accounts payable, and equipment inventory are but a few of the by-products obtainable from GET. Architects who wish to use the system will find the Work Item coding system uses the present day A.I.A. specification classification. Those people who estimate their work by square foot can use GET easier prhaps than those who make detailed quantity surveys. Each part of the system is independent of the other phases.

Phase one makes it possible to "break-down" the specification in great detail to insure nothing has been missed when compiling the entire estimate. During the process of analyzing the specification, a letter will be provided notifying the sub-contractors of the estimators' desire to receive their proposals. Sub-contractors will be told which portions of the specification to bid on, as well as the bid date, time, and the architect's name. Should the division numbers of the particular specification be different than GET, the system will organize itself according to that

specification numbering system.

Phase two is the portion where most of the estimators' time has been saved. It is still necessary for the estimator to make a take-off of dimensions from the plans. This is done in the conventional manner except that these dimensions may be entered directly into the computer to save additional time and transpositional errors. No calculations will be performed! Estimators will enter length, width, height, number of, and/or whole quantities by code number. Alternates are handled in the same manner. This information once inputed to the computer provides the following reports: A Quantity Survey list for each item of take-off, and Un-used Master Code Item report, a separate Totals report for special areas within the estimate (i.e. 2500 cy of concrete), a Summary List showing all quantities totalled and the various standard unit prices

so they may be adjusted if necessary, and a basic estimate priced, and summarized. All of these reports are completed within approximately five to fifteen minutes depending on the size of the estimate. A special feature of the program allows the estimator to vary the price of a particular section of the work (i.e. wall or floor etc.) by using "load factors". This is to provide accurate pricing of problem areas within the proposed job. The most important step in this system required the estimator to return to the plans and compare his original take-off with the plans! This "double take-off" is the key to an accurate estimate. "Double take-offs" are seldom possible in the slower conventional system.

Phase three is designed to tie the entire estimate together. As the prices and totals are completed, the system retains them in memory. On bid day the sub-bids are placed into the computer as they are received. At any time the estimator may wish to check the status of a particular trade, the computer will report that information on command. Occasionally sub-contractors will bid more than one trade division. When this happens the program will compare this and other trades to determine the lowest

possible price. If a sub-contractor is too low when compared to his competition, the system will notify the estimator so the proper action can be taken. Checks are made for tax inclusion, erection, and addendums. When labor must be added to complete a trade category, the computer will do so. A complete estimate Summary Report is provided showing all the trades, and the lowest amount for each division. This rather involved process can be reported out of the machine in just a few minutes. This speed is a real advantage when the bid has to be turned in during the day.

GET is a workable tool. It is accurate, fast, easy to use, and the cost of the system is reasonable. Furthermore, the system has been tried and tested.

No. GET will not get business by itself, but it will provide the accuracy so necessary for a profitable estimate. Architects will be able to provide more accurate preliminaries, and contractors will have proposals without major items left out. There can be no question that a profitable job aids all concerned. If GET is a step in that direction, then it is time to put away our slide rules and table top calculators.



LAST THINGS FIRST!

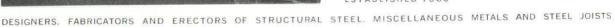
Pre-assembled PICO Safe Stairs go up before the building does . . .

... offer design flexibility and 20-30% savings over all other stairbuilding methods! Stairs no longer need be a component which causes construction delays. Designed for concrete, steel and masonry buildings, PICO Safe Stairs® are pre-assembled, delivered by truck and erected in minutes by crane operation. Once installed, they serve as "worker-access" stairs, as well as true guides for all phases of construction.

PICO stairs are made of welded, structural steel, and their dimensions are always accurate as a result of close tolerances realized through in-plant quality control.

For additional information, or consultation to assist you in adapting the PICO idea to your individual plans, write or call: Haven-Busch Company, 3443 Chicago Drive, S.W., Grandville, Michigan 49418. 616/LE 2-3641





Licensee

Arts Festival Scheduled for September 20th

The Allied Arts Committee of the Detroit Chapter, AIA, in cooperation with the University of Detroit, School of Architecture, has announced its Festival Evening for September 20, 1969. This year's event, the ninth annual Festival, promises to be outstanding on several counts. The University of Detroit will open "The President's House," the Alfred J. Fisher mansion in Palmer Woods, for the occasion. This splendid home and its surrounding gardens is a beautifully preserved treasure-house of carving, murals, and furniture. In essence, the house represents a nostalgic but still vital view of an earlier Detroit and the best of its cultural qualities.

Into the unique and romantic setting of the Alfred J. Fisher home, the Allied Arts Committee will introduce the work of twenty-nine contemporary

Michigan artists.

The featured artists for the 1969 Allied Arts Committee are: W. Alonzo Allan, Jack Bailey, David Barr, Gary Boyll, Morris Brose, Kingsley Calkins, Russell Dunbar, Marshall Fredericks, Al Herbert, Sheldon Iden, Angelo Ippolito, J. Patrick Kenny, Bette R. Klegon, Aris G. Koutroulis, Richard Kozlow, Alan Leepa, Clifton McChesney, Glen Michaels, Walter Mitchell, John Nick Pappas, Yans Plum, George Rogers, Sarkis Sarkisian, Julius Schmidt, G. Aldon Smith, Martin J. Weil, Arthur W. Wenk, and Richard Wilt.

The artists will be on hand to present examples of their work and to discuss their philosophies of design. Several whose art is too large for exhibition at this one-night showing will



Allied Arts Committee, 1969. Main Hall of the Fisher Residence.

illustrate their work with illuminated projections.

The gala event will commence at 8:00 P.M. Hors d'oeuvres and Champagne will be served; the supper buffet will begin at 9:30 P.M. Later, bars will open for mixed drinks. Dancing to live music in the ballroom will culminate the Festival Evening.

The Allied Arts Committee hopes that many will take advantage of this rare opportunity to discuss trends in art with knowledgeable and highly creative contemporary artists and to enjoy a sparkling evening, as guests of the University of Detroit, in a distinguished and lavish atmosphere. Invitations will be in the mail in early September, or you may make early reservations by calling the Detroit Chapter, AIA.

The following item is reprinted from the Sunday, July 6, edition of the Saginaw News.

"Architects Look Toward Public Service"

Public service and the desire to improve the living environment are common concerns held by Saginaw architects, according to Arthur E. Nelson, president of the Saginaw Valley Chapter of the American Institute of Architects.

"We have to make people aware of what architects can do to improve society and the environment," Nelson said, "In the past architects worked for people who asked for the service. Now we are developing a more public service attitude and telling citizens there is a better way to live.

Nelson said members of the Saginaw Chapter of AIA, which includes members from Saginaw, Bay City and Midland, proposed that Saginaw establish a community design center that "would provide services to people who can't afford an architect or who would not normally come in contact with an architect," according to Nelson.

Members of the chapter agreed to donate 1,000 man hours to help staff such a design center if the city establishes the facility. Nelson also said the chapter applied to Vista, the domestic peace corps program, for a Vista volunteer who has a technical background to help staff the center. He said the chapter will be notified in the early fall whether a Vista Volunteer will be assigned to the Saginaw area.

Nelson said the community spirit idea is really catching hold of most



architects here and in other parts of the nation.

'We have a stake in our communities because we live in them. We realize that we have a responsibility like others to help improve our society and to help solve some of the social problems," Nelson said.



Nelson and three other members of the Saginaw Chapter attended the national AIA convention in Chicago two weeks ago. He said delegates approved a resolution calling for all architects to donate a certain percentage of their commission fees to a general fund that would be used to improve social problems. He said the fund could total nearly \$15 million by next year.

Nelson said the delegates were challenged by architectural students at the convention to become more involved

with community affairs.

Locally the Saginaw Chapter finances two scholarships awarded annually to Delta College students to continue their education in technical fields, according to Nelson.

Nelson said a special committee is preparing a photographic slide presentation that will deal with local environment issues and how they can be improved. He said the program will be ready in the fall and presented to the city council.

Areas being studied in the slide presentation include how to make better use of the Saginaw River and property along the river and how to make the river commercial development pleasing to the eye.

"We have to punch society in the nose and make them realize this doesn't have to be. There is a better

way to live," Nelson said.

"Simple things like store signs, telephone lines and traffic signs can be made to blend into the country side and be made more pleasing to the eye," Nelson said.

Besides the slide presentation the Saginaw Chapter has offered its services to the city in helping to make plans for the Model City program. The chapter also makes available on request to area schools a film dealing with the role architecture plays in society.

Sol King Elected President of ESD

Sol King, president and director of architecture for Albert Kahn was installed as president of the 8,000-member Engineering Society of Detroit at the Society's 33rd Annual Meeting. King is the first architect ever to become president of the Society.

Other new officers for 1969-70 are: William M. Dull of The Detroit Edison Company, elected to a one-year term as vice president; and Ernest P. Lamb, re-elected to a second term as treasurer. The Society's board of directors also re-appointed Robert W. Crory as secretary and executive director.

King first joined Albert Kahn Associates in 1935 and was made project engineer in 1938. He was elected to the company's board of directors and made a vice president in 1955, and three years later was appointed director of architecture and elected president of the firm, his present positions.



Under King's leadership, the firm has received 12 awards in 10 years and has executed commissions for the design of industrial, commercial and institutional facilities valued in excess of a billion dollars.

In 1966, King was elected to Fellowship in the American Institute of Architects "in recognition of his notable contributions to the science of construction." The following year he received a Sesquicentennial Award from the University of Michigan for "knowledge, wisdom, and the courage to serve," and the Michigan Society of Architects honored him with its Gold Medal Award for "outstanding accomplishment and influence in the practice of architecture."

A member of ESD's board of directors since 1964, King's service record at the Society includes a term as assistant treasurer in 1965-66 and vice president in 1968-69.

A graduate of the University of Michigan with a B.S. in architecture, King is registered to practice architecture in 25 states and the District of Columbia and also holds a certificate issued by the National Council of Ar-

chitectural Registration Boards.

King's professional activities currently include service on the Public Advisory Panel on Architectural Services of the General Services Administration of the Federal Government, and chairmanship of one of the Panel's subcommittees. He is also a member of the National Committee on Government Executive Agency of the American Institute of Architects, and has served as vice president and a director of AIA's Detroit Chapter.

King also holds membership in the Michigan Society of Architects; Founders Society, Detroit Institute of Arts; President's Club, University of Michigan; Building Officials Conference of America; Building Research Institute; Greater Detroit Chamber of Commerce; and Economic Club of Detroit.

High School Competition Student Competition Awards for 1969

The following article is a report from the Committee on Education of the Detroit Chapter regarding the competition program established in cooperation with the Detroit Edison Company for students in high school drafting courses. The ever increasing need for such programs makes the goal of the committee for greater participation by the profession extremely commendable.

The Architectural profession not only has a responsibility to present its purposes and functions to young people, but—because of a manpower shortage within the profession—a need to encourage young people to become seriously interested in Architecture as a career.

The Detroit Chapter in cooperation with the Detroit Edison Company has taken positive steps to fulfill these responsibilities, by placing increasing emphasis in a program of design competition which it established two years

The first competition was held in the spring of 1968. Approximately thirty students competed that year. The program culminated with an awards banquet at which time two scholarship awards were presented. A \$500.00 scholarship first place award to Jerome Radcliff and a \$250.00 scholarship award given to James Kendall.

Other awards and certificates were presented to 3rd and 4th place winners to honorable mention recipients, and to winners who excelled in lighting design.

This year's competition attracted over 25 metropolitan high schools both public and parochial—with 50 students representing their designs for



First row, L to R: Gerald Wargo, Mark Dalton, Jeanette Kuhn, Henry Roberts, John Lightborn. Second row, L to R: Carl Roehling, John Duerksen, Charles Walters, Porter Dillard, Brian Bloomfield. Other winners not shown: Finn Meyer, Howard Normile, Bernard Tobianski.

judgment. The judging, which took place on May 1 at Lawrence Institute of Technology began at 9:00 A.M., and was not completed until 5:00 P.M. Over 150 colorful plates which filled the LIT auditorium, were judged by architects Yosh Machida, and Mark Jaroszewicz and Harvey Ferrero, and by consulting engineer Leonard Gussow.

The competition winners and their parents, students, teachers and department directors from the participating schools, archtiectural critics, the competition judges, officers of the Detroit Chapter, members of the Committee on Education and executives from the Detroit Edison were invited guests at the annual awards banquet, sponsored by the Detroit Edison Company. The banquet was held on May 15, at Lawrence Institute of Technology. A congratulatory message to the participation students and a welcome to the guests was made by Dr. Earl Pellerin. Director of the School of Architecture of LIT. The architectural awards were presented by John Lightbourn, chairman of the Committee on Education. Detroit Chapter, AIA, and the electrical awards were presented by Paul A. Duker, Manager of Marketing, Detroit Edison Company.

The names of the winners in Architecture were 1st prize-Carl Roehling -Kimbell High School, 2nd prize-Gerald A. Wargo-Thurston High School, 3rd prize-Mark Dalton-Cousino High School, 4th prize-Henry Roberts-Cass Tech. High School, 4th prize-Porter Dillard-Cass Tech. High School, 5th prize-Charles J. Walters-Centerline High School; honorable mentions; Finn Meyer-Cass Tech. High School, John Duerksen - Centerline High School, Jeanette Kuhn - Centerline High School, Howard J. Normile-St. Mary's High School and Brian Bloomfield-Thurston High School.

The names of the winners in Lighting were: 1st prize-Henry Roberts-Cass Tech. High School, 2nd prizePorter Dillard-Cass Tech. High School and 3rd prize-Bernard Tobianski-Cass Tech. High School.

Kenneth Livingston, chairman of the competition and John Lightbourn were enthusiastic in their appraisal of this year's competition. Ken Livingston was especially elated over the quality of design and graphics shown by the students. John Lightbourn, in a conversation following the banquet, reviewed the numerous effects the competition has had in relationship to its objectives. He spoke of the teaching role of two young architects in one Detroit School which began after the 1968 competition in which they acted as critics for that school. He noted another example in which one critic was working with a high school as an advisor to assist in the formulation of their architectural program. "We not only are making students aware of our profession," said Lightbourn, "but we are developing a real rapport with the Architectural departments in the high schools. We can accomplish so much if-I say if-we can get more and more offices and architects interested in the program, and if we can get assistance from the Chapter in the area of program management."

To maintain growth-which is mandatory to implement the total objectives of the competition-the committee on education will be in need of additional members in 1970. The committee needs architects who feel that this program is a vehicle for them to do their own "thing," to bring about better communications with the youth of our area, as well as establish an open door for future members of the profession. Call Robert B. Alpern, AIA. vice-president of the Detroit Chapter at 28 West Adams, Detroit, if you can help.

Swanson Announces Associates

Swanson Associates, Inc., announce the elevation of Arne W. Leppanen,



Carl Roehling and Frank North

Alex J. Violassi and Weslie J. Hofland to Associate status in their firm.

Prior to joining the Swanson Firm in 1968, Leppanen has been associated with architectural and engineering firms in the Detroit area including Holforty, Widrig, O'Neill & Associates, and Eberle Smith & Associates. He is a member of the American Society of Heating, Refrigeration and Air Conditioning Engineers and the National Association of Professional Engineers.

Newly appointed Chief Electrical Engineer, Violassi has been with the firm since 1967. A graduate of the University of Detroit, he has been an Associate and Chief Electrical Engineer with the firm of Minoru Yamasaki and Associates.

Weslie J. Hofland, Associate AIA, Project Designer with Swanson Associates since 1965, had been employed by firms in the Los Angeles area after receiving his education at the University of Southern California.

Lawrence W. Saltz, P.E., who has been Chief Electrical Engineer since 1956 will remain active as a special consultant in Electrical Engineering.

New Affiliate in the Guild

The Guild for Religious Architecture (formerly Church Architectural Guild of America), announces the acceptance into affiliate membership of Richard C. Prusinski of Detroit. Affiliate membership in the Guild is open to professional technicians and those whose personal active interest or vocation furthers the purposes of the Guild. A graduate of the University of Detroit, Prusinski is president of the Architectural Research Corporation, and is a member also of the Stained Glass Association of America.

The Guild for Religious Architecture was founded in 1940 by a group of architects, craftsmen and clergy to promote excellence of design in religious architecture and its allied arts. Over the years it has increased its membership and broadened its influence on Religious Architecture, to be the AIA. In cooperation with national ence, in 1965 becoming an affiliate of religious organizations, the Guild sponsors an annual National Conferheld in 1970 at Washington, D.C.

Prusinski now joins the fellowship of more than 500 professional architects, artists, craftsmen and clergymen dedicated to the advancement of better design and better function in religious

architecture.

Detroiters Honored at Houston

Three members of the Detroit Chapter of the Construction Specifications Institute were awarded high honors at the recent International CSI Convention in Houston, Texas.

Dr. Mike J. Horsch, recently retired from the architectural firm of Giffels and Rossetti, received the "Citation Award," which is only given to one individual per year, for an outstanding accomplishment in the specifications

writing profession.

Frank L. Couch, associated for many years with Smith, Hinchman & Grylls, was one of eleven in the nation to be elevated to a select group of specifiers who may now use the honorary title of "Fellow" following their name. Couch, who recently retired to Florida, had many papers published in national magazines on a variety of construction subjects.

William Brenan, Past President of the Detroit Chapter and now employed at Giffels & Rossetti, received one of two Technical Excellence Awards, given for outstanding research by a

CSI chapter.

Bliven Presents Certificates

In his last active gesture as President of the Detroit Chapter of the Contruction Specification Institute. Robert Bliven awarded Certificates of Appreciation to John Banicki, Robert Best, Bradley B. Brown, Paul F. Corbiere, Samuel M. Deyo, A. C. Forster, E. B. Grime, Gordon L. McQuade, Victor Specht, and Emrys L. Williams.

Les Larkin of the Edwin C. Levy Company and William Brenan, Giffels & Rossetti, received special recognition for long and exemplary service to the organization. A. W. Luckham was given an honorary membership.

Larkin, former Editor of the DeCipher; a chapter house organ of over 800 issues per month; for the past five years, also served as a member of many chapter committees.

Brenan, Chairman of the Technical Committee, was recently honored in Houston, Texas, as one of two recipients of national technical awards.

Seated, L to R:
Les Larkin,
Robert Bliven,
Bill Brenan.
Standing, L to R:
Brad Brown,
Burleigh Grime,
Vic Specht,
Paul Corbiere,
Sam Deyo,
John Banicki,
Bob Best.





Michigan Chapter— Producers' Council, Inc. 1969-1970 Officers L to R: Paul Boudreau, Herman F. Marsh, Frank Neal, Adam De Martino.

PC Election

Michigan Chapter, Producers' Council, Inc., announce the election of officers for 1969-70: Herman F. Marsh, Aluminum Supply Co., Inc., President; Paul Boudreau, Executone - Detroit, Inc., 1st Vice-President; N. A. Collareno, Inland Steel Products Co., 2nd Vice-President; Frank Neal, Honeywell, Inc., Treasurer; Adam De Martino, Michigan Consolidate Gas Co., Secretary.

Formed in 1921, The Producers' Council today is the national association of quality building product manufacturers. The Council's prominent member firms and associations have the greatest total capital investment of any segment of the construction industry. Membership consists of over 200 firms, subsidiaries, and associations, representing a broad cross-section of U.S. building product manufacturers.

To provide personalized local service to members of the design professions and other construction industry groups, the Council maintains chapters in 52 major cities. Chapter membership consists mainly of local sales representatives of national members and their activities parallel on the local level the functions of the national Council.

Marsh, a resident of Royal Oak

since 1952 is a technical sales representative of the Aluminum Supply Company and has served as First Vice-President, Second Vice-President and as Treasurer.

Artist Registry Available

This year, in late August, the Allied Arts Committee will mail a Registry of Professional Michigan Artists to all the Michigan Chapter AIA members. The Registry will include biographical sketches of each of the artists and many photgraphs. The cost of this publication is being paid for by selected galleries and represents no cost to the AIA members. The more detailed biographies along with slides and photographs of the artists work will be on file in the Detroit Chapter offices so that any Architect wishing to incorporate art into his projects will have a convenient and up to date reference source. The Allied Arts Committee in co-operation with Art Schools, Galleries, and the Michigan Council for the arts have genuinely attempted to include all qualified Artists; however if any have been overlooked this year please notify the committee thru the Detroit Office so that they may be included next year.

Report to the Membership, June 22, 1969, Chicago, Illinois Committee on Internship and Licensing, ASCA

R. B. Lytle, Jr.; Chairman

Being one of the few non-registered members of this organization, I was specifically assigned this Chairmanship so that I might report a "different viewpoint"-of a research-oriented faculty member who devoted eight months of research activity to the study of architectural structures, the registration examinations of same and the students involved in parallel situations. I was fortunate to have twice the study time available to the other candidates and the money needed for study courses, consultants, tutors and motel hide-aways. Few candidates were so fortunate.

With this charge-and in the most ideal of situations-on the eleventh of June, I took the opportunity of participating in the annual sadeomasochistic game of writing a segment of the examination of the examination of the State Board of Registration for Architects. I wrote it for two reasons: primarily, to understand the system of evaluating our graduates, and, also because I had been asked by President Bliss to accept the Chairmanship of the Committee of Internship and Li-

Writing the examination confirmed my supposition that this so-called test of a person's knowledge of the structural area of architecture is, in reality, not a test of ability, but a sadistic psychological game designed to overwhelm the graduates of our architectural schools, and to so stress their mental state that they become unable to discern reality from gamesmanship.

Games can be fun.

And stress, in itself, is not necessarily a vice. Read: Bernard, McNeil and Klausner in the latter's "Why Man Takes Chances." There exists among us the person whose potential for creativity is enhanced by stress situations. He's called the Eudaemonist; be he mountain-climber, murderer or architect. He works his best in a situation of eustress, gaining a sense of accomplishment through conflict. There exists, however, a greater number of so-called "rational" persons whose work benefits most in a calm environment with a deterioration into a distressed situation and acquiscence

to defeat in the face of stress.

The bewilderment of distress-expressed facially-by our graduates after the five-hour (?) examination convinced me that this committee's recommendation should be approved by the ACSA and that the writing of the registration examination must be circumvented by assigning registration upon a candidate's successful completion of an educational program in architecture. For-how can six years of rational study be capsulated into an 8 hour/day-5 day, session of games? How can we accept the premise that proficiency for the practice of architecture (basically a logical, decision-making process) can be determined by a game in which a random pattern of answers by a gambler might equal, or better, the evaluation of a qualified but distressed candidate?

The game, as played-if you havent tried it lately-consists of several simultaneous stress-building subsets of games: 1. The race against time. 2. The decoding of Multi-conditioned questions. 3. The evaluating of four possible answers. 4. The shifting of focus from a question sheet to a sheet of barely perceptable numbered boxes. 5. The infilling of a square with the proper weight of black lead.

I played the game as prescribed. juggling the variables. I have no idea whether I passed or not. But-my personal situation is unimportant. What "is" important is that few of the bewildered candidates were aware of their success or failure. Not even those graduates who had specialized in the structural option of the curriculum knew their position.

This unknowing-this bewilderment -is the basis of both frustration and retaliation. Throughout the educational system this unknowing is a possible cause of recourse to drugs by the distressed and rioting by the eustressed. With specific reference to the State Board of Registration Examination, it was the cause for verbal tar and feathering of the registration board and the increased intake of depressents. Somewhere this pattern of unknowing must be abolished. A logical place to start is with the elimination of the registra-



tion examinations and other similar examinations. If the education of our students is to be a benefit to them in their chosen profession of architecture -successful graduation, rather than a morale-breaking game must be the basis of registration.

On behalf of the Committee, I move that the recommendation be approved and implementation for its effectuation be initiated. For, if this is not done, I foresee a declining number of qualified architectural graduates entering the profession and our schools becoming dispensaries of drugs.

The motion is before you.

President Bliss read this report, as published in the ACSA "Annual Report 1968-69," reprinted here:)

At times, it becomes necessary to review the components of a system, to analyze the efficacy of its regulations and to question the bases of the decisions which determined them. At no time must one maintain that such systems, rules and bases, once resolved, become inviolate. In the profession of architecture, the programs of schools, the requirement of internship and the laws of registration are not to be excepted. Changes made in some sectors imply modifications in others.

The recommendations of this Committee were formulated on the premise that a "professional" practices within his area of ability with a respect for "the public trust." That he may overstep the limitations of his capabilities is a personal and ethical question outside the realm of legislation and, consequently, these recommendations. The committee evaluated the acadmic. professional and legal variables within the system and redefined the province of responsibility of each sector. We propose that the following definitions be supported by the membership:

1. Academic education, including internship, is the province of the schools of architecture. The title "Architect," together with the rights and privileges of such a title, shall be conferred (by the School) upon each graduate of an accredited school of architecture. (No examination, save one supplementing any academic accreditation deficiencies of the school need be written. Such accreditation deficiencies of the school need be written. Such accreditation is the province of peer schools and the profession.) Post-graduate internship programs of the Schools shall be considered problem-determining and problem-solving agencies for the profession and the community.

2. The diploma "Professional Architect," together with the rights, privileges and responsibilities of such title, shall be conferred by the state and the profession upon the "Architect" who proves competence, through examination in elements of professional practice, specifically, Ethics, Jurisprudence and Management.

3. A certificate of "Architectural Specialist" shall be awarded an "Architect" who, through continuing education and practice is a generically different area of specialization, proves his excellence in such area, through examination.

A. J. Diamond, University of Toronto, H. C. Johe, The University of Michigan, C. Patterson, Jr.; Kent State University, J. M. Peterson, University of Cincinnati, R. B. Lytle, Jr.; University of Michigan, Chairman.

Postscript: With three alternatives for action available, i.e. approval, disapproval and tabling; the membership elected to table, this report being the only one receiving such "action" (?).

Designer Beth Pilafian Dies

Mrs. Suren (Beth) Pilafian, 61, died July 4 in Grace Central Hospital after a long illness.

An architect, Mrs. Pilafian held degrees in architecture and interior design from the University of Minnesota and Columbia University.

As color consultant in her husband's architectural firm, she worked with him on many projects, including WSU buildings, churches and Detroit public schools.

She was a member of the Citizens Advisory Committee for Detroit Public Schools under the chairmanship of George Romney; an associate of the American Institute of Architects; a member and officer of Associates of Women in Architecture; a member of the Women's Architectural League of Detroit, and had served as a board member and officer of the Campfire Girls.

Mrs. Pilafian taught classes in color and design at Western Michigan University and the Adult Education Division of Wayne State.

Other survivors are a daughter, Mrs. John Dergazarian; three sons, Peter, Michael and Christopher, and five grandchildren.

Memorial tributes may be sent to the Beth Pilafian Memorial Fund of Northwest Unitarian Universalist Church. Calendar
September 20
March 4, 5, 6
Allied Arts Festival, Fisher Residence,
University of Detroit.
MSA 56th Annual Convention
Grand Rapids, Michigan.

Situation Desired

Former Partner and Chief Architect for 80 man A/E Firm with institutional and industrial orientation. Box 1301, Monthly Bulletin, 28 West Adams, Detroit, Michigan 48226.

Advertisers Index	
Belden Brick Co 3rd C	over
Ceramic Tile Contractors	
Promotion Fund	8
Consumers Power Company 2nd C	over
Den Braven, M	22
Detroit Edison Co	6
Detroit Roofing Inspection	
Service	20
Dondero Sash & Screen	20
Glanz & Killian	12
Haven Bush Co	14
Levy, Edw. C. Co 4th C	Cover
McKinley, O.O., Co	2
Mechanical Heat & Cold	15
Michigan Drilling Co	11
Michigan Consolidated Gas Co	11
Roofing Industry Promotion Fund	8
SMEAD	1
Supersign	11
University Lithoprinters, Inc	3

Free-Standing Fireplaces

Easily Installed for Apartments, Homes, Cabins



FIREHOOD



AZTEC



MANCHESTER-PIERCE

Fireplace Division

DONDERO SASH & SCREEN, INC

1523 N. Main Street

Royal Oak, Michigan 48067

LI 5-0600 or LI 5-1902

MICHIGAN DISTRIBUTOR FOR CONDON-KING AND MALM FREE-STANDING FIREPLACES

For LEAK-PROOF ROOFS specify



The only ROOFING INSPECTION SERVICE which GUARANTEES performance of roofing systems covered by the M.R.C.A. TWO YEAR warranty.

Now serving the Wayne, Oakland and Macomb Counties area.

Detroit Roofing Inspection Service, Inc.

Lower Level "A"

Consolidated Agencies Bldg.

Burns Dr. at E. Jefferson

Detroit 48214

VA 2-3362